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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			EXAMINER SHABMAN, MARK A	
			ART UNIT	PAPER NUMBER
			2856	
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			12/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/578,688

Applicant(s)

CHAMPSEIX ET AL.

Examiner

Mark Shabman

Art Unit

2856

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 8/01/2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: **7, 38**. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "incubation chamber" claimed in **claim 8** and the "hydraulic circulation vessel" of **claim 9** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended

replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 1, 3, 5 and 13 are objected to because of the following informalities: The recitation of the term "in particular" in each of the claims is misleading and should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 6-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding **claim 1**, lines 11-12 of claim state "the syringes comprising an air pump (15, 16), said air pump comprising at least a syringe (15, 16)". This phrase is interpreted as the syringes (as previously disclosed in the claim) *each* contain an air pump which is comprised of yet another, different, syringe. The description shows a syringe block in which two of the syringes are used to pump air. It does not show an instance in which the syringes comprise an air pump as claimed.

Regarding **claim 6**, the claim states that a dilution chamber "may be fixed on the collector and/or linked direct to a respective electronic switch valve by a duct among the second ducts." The specification does not describe an instance in which the dilution chamber is linked to the valve by a duct. Page 3 lines 5-15 describe the dilution chamber as being "fixed on the collector", thus the dilution chamber must be fixed to the collector. The term "may be" implies a situation in which the dilution chamber is not fixed to the collector which is not supported by the specification of the application.

Regarding **claim 7**, the claim states that a measurement chamber "may be fixed on the collector and/or linked direct to a respective electronic switch valve by a duct among the second ducts." The specification does not describe an instance in which the

measurement chamber is linked to the valve by a duct. Page 3 lines 5-15 describe the dilution chamber as being "fixed on the collector", thus the measurement chamber must be fixed. The term "may be" implies a situation in which the measurement chamber is not fixed to the collector which is not supported by the specification of the application.

Regarding **claim 8**, the claim states that an incubation chamber "may be fixed on the collector and/or linked direct to a respective electronic switch valve by a duct among the second ducts." The specification does not describe an instance in which the incubation chamber is linked to the valve by a duct. Page 3 lines 5-15 describe the dilution chamber as being "fixed on the collector", thus the incubation chamber must be fixed. The term "may be" implies a situation in which the incubation chamber is not fixed to the collector which is not supported by the specification of the application.

Regarding **claim 9**, the claim states that a hydraulic circulation vessel "may be fixed on the collector and/or linked direct to a respective electronic switch valve by a duct among the second ducts." The specification does not describe an instance in which the hydraulic circulation vessel is linked to the valve by a duct. Page 3 lines 5-15 describe the dilution chamber as being "fixed on the collector", thus the hydraulic circulation vessel must be fixed. The term "may be" implies a situation in which the hydraulic circulation vessel is not fixed to the collector which is not supported by the specification of the application.

Regarding **claim 10**, the claim states that an optical bench "may be fixed on the collector and/or linked direct to a respective electronic switch valve by a duct among the second ducts." The specification does not describe an instance in which the optical

bench is linked to the valve by a duct. Page 3 lines 5-15 describe the dilution chamber as being "fixed on the collector", thus the optical bench must be fixed. The term "may be" implies a situation in which the optical bench is not fixed to the collector which is not supported by the specification of the application.

Regarding **claim 11**, the claim states that the electronic circuit carrying card is "able to be fixed on the collector". Page 3 lines 5-15 describe the card as "fixed on the collector" which is not "able to be fixed" as claimed. "Able to be fixed" implies the card is not attached, or at the very least detachable, which is not disclosed in the specification. The term "may be" implies a situation in which the electronic circuit carrying card is not fixed to the collector which is not supported by the specification of the application.

Claims 8-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding **claim 8**, the specification does not disclose where the "incubation chamber" is or how it is to be used other than that it is "fixed to the collector".

Regarding **claim 9**, the specification does not disclose where the "hydraulic circulation vessel" is located or how it is to be used other than that it is "fixed to the

collector". Further, it is unclear as to what the "hydraulic circulation vessel" consists of. Is it piping for circulation within the system, or is it an actual container of sorts?

Regarding **claim 10**, the specification does not disclose what the purpose of the optical bench is or how it is used in the invention. It is merely stated that an optical bench is "fixed to the collector". The description therefore is not enabling.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 9, 9 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding **claim 4**, lines 3 and 4 state "taking of a sample with a view to a counting step during an analysis". What does "with a view" mean? Is this a statement of intended use with an automatic analysis machine?

Regarding **claim 6**, what is the "dilution chamber" as claimed? The specification discloses a "dilution and counting vessel" 52 and a tank, 62, in which a sample is diluted. A dilution chamber is described as being "fixed on the collector" on page 3 lines 5-15 but no further details are given. Is this one of the aforementioned items or another device used for dilution? Furthermore, the term "it comprises" in line 2 is indefinite as "it" could refer to a number of items excluding the syringe block.

Regarding **claim 9**, what is meant by a "hydraulic circulation vessel"? Is this hydraulic cabling which is described in the background or some sort of device for moving fluids throughout the system? This could also correspond to the "ducts" of claim one which would fail to further limit that claim as the duct work is more specific than the "hydraulic circulation vessel" claimed.

Regarding **claim 12**, the claim states that "it is placed in an air-conditioned enclosure". What is "it" referring to? Does it mean the syringe block, the entire machine, or something else entirely? Since the claim is dependent in claim 1, it includes the limitations of claim one as well and thus "it" is indefinite.

Claim 12 also seems to be directed towards a method in that "placed" is an action step which cannot be associated with an apparatus claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melet.

Regarding **claim 1**, Melet discloses an automatic hematologic counting and analyzing device comprising a pump assembly containing 3 pistons in a casing (column 2 lines 29-33) which reads on the "several syringes" as claimed. There further exists a

collecting portion comprising electronic switch valves EV1-EV15 in figure 1, to which "ducts" are connected. A first set of said ducts connects electronic switch valves to the internal volume of the syringes and a second set of said ducts connects the same electronic switch valves "in the direction of respective containers for the sample and/or other liquids" as is seen in figure 1. There exists an "air pump" 14 in the form of a syringe which is part of the unit, thus reading on the pump as claimed. The syringes contained in pump 10 are all "rigidly linked to each other such that they simultaneously carry out a single movement". It would have been obvious to one of ordinary skill in the art at the time of invention to also include air pump 14 in the pump unit 10 of Melet to reduce the number of motors in the system by one. If air was not needed to be pumped into the system when other fluids were, valve 34 could be opened to bypass the airflow within the system accordingly.

Regarding **claim 2**, the apparatus of Melet uses only one syringe as an air pump. It would have been obvious to one of ordinary skill in the art at the time of invention to duplicate said syringe to create an air pump which uses two syringes so that air could be supplied to two areas of the system by compressing the pistons of the syringes a single time instead of having to compress the pump two times opening and shutting valves in between.

Regarding **claim 4**, the air pump 14 draws liquid from the container 4 into the measuring chamber 20 by reducing the pressure within the chamber prior to the counting step (column 4 lines 19-38).

Regarding **claim 5**, after the method of Melet is finished, the waste is expelled via means of the air pump (column 5 lines 36-39), reading on the claim in its entirety.

Regarding **claim 6**, items 3 and 4 in figure 1 of Melet are described as dilution containers (column 4 lines 5-10), reading on the claimed "at least one dilution chamber" which can be seen to be "linked direct to a respective electronic switch valve" by a "second duct" (figure 1).

Regarding **claim 7**, a "measurement chamber" is described in Melet as item 20 of the figure illustrated. Since the device in Melet is described as an apparatus comprising many parts, it is understood that said measurement chamber is "fixed on" the collector in order to operate in conjunction with the ducts.

Regarding **claim 13**, the invention disclosed in Melet is used for automatic analysis of blood, thus reading on the claim.

Claims 3, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melet as applied to claim 1 above, and further in view of Bachenheimer US patent 4,607,526 (hereinafter referred to as Bachenheimer).

Regarding **claim 3**, Bachenheimer discloses a particle analysis system containing a face plate member and a mating flexible member, one of which has a plurality of passages (abstract). The passages provide a path for the various fluids to follow within the system (column 3 lines 50-56). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the passageways of Bachenheimer with the apparatus of Melet in order to create a system which is capable

of operating on small volumes of fluid and to reduce the amount of connecting tube required.

Regarding **claim 9**, Bachenheimer discloses a series of passages as described in the rejection of claim 3. These passages are seen as "vessels" for transporting fluids, thus reading on the "hydraulic circulation vessel" as claimed.

Regarding **claim 11**, Bachenheimer discloses the use of electronic circuits in the process of blood analysis (column 4 lines 39-44). These circuits would have to be on some sort of "card" as claimed which would be able to be fixed to the detector if required.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Melet as applied to claim 1 above in view of Kim US Patent 5,648,225 (hereinafter referred to as Kim).

Regarding **claim 8**, Melet discloses the claimed invention with the exception of an incubation chamber. Kim discloses a method for analysis of a blood sample. Kim describes in the background of the invention the need for incubation when analyzing blood sample and in column 3 lines 58-63 the use for incubation in the analysis method disclosed. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Melet to provide an incubation chamber or means for incubating the blood within one of the chambers 20, 21, or 22 to help denature the cell surface antigens to promote hemoglobin clumping to aid in counting.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Melet as applied to claim 1 above in view of Jottier US Patent 4,231,990 (hereinafter referred to as Jottier).

Melet discloses the claimed invention with the exception of placing the syringe block in an air conditioned unit. Jottier discloses an apparatus for the treatment of fluids which can be used in the medical field for blood analysis (column 4 lines 27-38). The apparatus contains a cooling device consisting of a closed loop circuit in which fluid flows (column 1 lines 57-64). Since blood is sensitive to temperature and must be kept cool for proper storage and analysis, it would have been obvious to one of ordinary skill in the art at the time of invention to maintain a cool temperature surrounding the system while analysis was taking place. This could be accomplished a number of ways including simply lowering the temperature of the testing room to prolong the survival of the blood sample.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Shabman whose telephone number is (571) 270-3263. The examiner can normally be reached on M-F 7:30am - 5:00pm, EST (Alternating Fridays Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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